

DISCUSSION OF THE CLAIMS

Claims 1-13 are active in the present application. Claims 1-5 are original claims. Claims 4 and 5 are presently withdrawn from active prosecution. Claims 6-13 are new claims. Support for new Claim 6 is found on page 7, line 24 through page 8, line 10. Support for new Claim 7 is found on page 8, line 15 and page 17, line 7-9. Support for Claims 8 and 9 is found in the drawings and on page 5. Support for new Claim 10 is found on page 7, line 22; the Table on page 16; and page 16, line 27 through page 17, line 4. Support for new Claim 11 is found on page 1, lines 8-10. Support for new Claim 12 is found on page 7, lines 24-27. Support for new Claim 13 is found on page 16, line 25.

No new matter is added.

REMARKS

Applicants disclose a seamless airbag cover and a composition for a seamless airbag cover that addresses many defects and disadvantages of conventional airbag covers. One drawback of conventional airbag covers is a tendency to break and scatter sharp debris upon activation and expansion (see pages 1 and 17-18 of the specification). This, of course, is disadvantageous because such sharp debris may injure the people which the airbag is intended to protect. Further, conventional airbag covers may include seams that are unsightly and/or may lead to breaking or premature deflation of the airbag during an activation and expansion cycle.

Applicants disclose a superior seamless airbag cover made from a resin composition that includes a polypropylene resin and talc having an average particle diameter of 15-25 μm . Importantly, the particle size distribution of the talc must be such that the number of small particles and the number of large particles is limited. For example, independent Claim 1 limits the number of small particles, i.e., particles having a diameter of 5 μm or less, to an amount of no more than 10% by mass. Likewise, present Claim 1 limits the amount of particles having a diameter of greater than 40 μm to 10% by mass or less. A polypropylene resin containing the talc the present claims provides a seamless airbag cover addressing the deficiencies of conventional airbag covers.

Applicants describe examples in the original specification demonstrating the criticality of the particle size characteristics of the talc of the present claims. Table 1 describes resin compositions containing 65% by mass of a polypropylene, 10% by mass of an elastomer and 25% by mass of talc. Talc A, C and D do not meet all of the requirements of the talc recited in the present claims. For example, Talc C and D have an average particle size that is outside the 15-25 μm range recited in Claim 1. Talc A has an amount of particles

having a diameter exceeding 40 μm that is greater than the 10% by mass maximum recited in present Claim 1. Only Talc B meets all of the requirements of the talc recited in Claim 1.

Table 1 shows that the inclusion of any of Talc A, C or D in a polypropylene composition provides an airbag cover that is not capable of meeting the expansion property requirements described in the paragraph bridging pages 14 and 15 of the specification. It is only when the talc meets the particular requirements recited in present Claim 1 that the claimed airbag cover is able to pass the expansion test.

TABLE 1

	Example		Comparative Example		
	1	2	1	2	3
<u>Components of formulation (% by mass)</u>					
PP-A	65	65	65	65	65
Elastomer A	10				
Elastomer B		10	10	10	10
Talc A			25		
Talc B	25	25			
Talc C				25	
Talc D					25
Property for expansion of air bag	passed	passed	failed	failed	failed
MFR (g/10 min)	25	25	25	23	25
Flexural modulus (MPa)	2200	2200	2200	2450	2100
Izod (kJ/m ²)	25	28	25	30	14
Condition of fracture by high rate impact test	brittle	brittle	brittle	ductile	brittle

Notwithstanding Applicants' examples demonstrating the criticality of the particle size characteristics of the talc of the present claims, the Office rejected the claims as obvious over JP 2003-183459 (JP '459) in combination with Sobajima (U.S. 5,747,576) and/or Sugita (U.S. 2006/0199891). The Office asserts that the Sobajima publication describes a talc

meeting the requirements of the talc recited in the present claims. In particular, the Office points to column 4, line 17 as support for such an assertion. The Office likewise cites the paragraph [0069] of Sugita as evidence that the cited art discloses the talc of the present claims.

Applicants submit that the cited art does not disclose a talc that “has an average particle diameter of 15 to 25 μm and a distribution of a particle diameter such that a content of particles having a diameter of 5 μm or smaller is 10% by mass or smaller and a content of particles having a diameter exceeding 40 μm is 10% by mass or smaller.” Instead, at best, Sugita discloses a platey inorganic filler having an average particle diameter that is preferably from 5 to 25 μm . In paragraph [0070] talc is provided as one of several examples of the platey inorganic filler. Notwithstanding Sugita’s generic description of average particle diameter, the cited reference does not disclose a talc having the particle diameter distribution required by present Claim.

Sobajima likewise includes a generic description of the average particle size of a talc. In particular, Sobajima describes a talc “having an average particle size of 1.5 to 20 μm , preferably 1.5 to 10 μm , more preferably 1.5 to 6 μm , ...” (see column 4, lines 18-22 of Sobajima). Sobajima does not disclose a talc having the particle diameter distribution recited in the present claims.

The primary reference JP ‘459 fails to disclose a talc meeting the requirements of the present claims. In fact, at paragraph [0022] of the machine English translation of JP ‘459, a mean particle diameter of the talc (E) is disclosed to be 1 to 5 μm . Applicants submit that it is readily evident that the talc of JP ‘459 is substantially different with respect to average particle size in comparison to the talc of the present claims. In fact, the maximum mean particle diameter of the talc of JP ‘459 is only about 1/3 the minimum value of the average particle diameter of the talc of present Claim 1.

Applicants thus request withdrawal of the rejection in view of the cited art's failure to disclose or suggest the talc-containing resin composition of the present claims.

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